

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) An exhaust emission purifying apparatus ~~that performs the~~ for performing a purification process ~~[[of]]~~ on exhaust gas emitted from an engine for an industrial vehicle, the exhaust emission purifying apparatus comprising:

a collection section that collects particulates contained in the exhaust gas emitted from the engine;

a detection section that detects information on the amount of the particulates collected at the collection section;

a temperature adjustment mechanism that adjusts the temperature of the exhaust gas, which effects the collection section, to a predetermined temperature corresponding to the combustion temperature of the particulates; and

a control section that controls the temperature adjustment mechanism on the basis of the information detected at the detection section,

wherein the temperature adjustment mechanism is constructed with at least an injection amount adjustment section that adjusts the amount of the fuel injected to the engine, an engine load adjustment section that adjusts the load on the engine, and an air intake restriction adjustment section that performs restriction adjustment of the amount of air intake to the engine.

2. (currently amended) The exhaust emission purifying apparatus according to claim 1, wherein the engine includes a throttle opening degree value and when ~~in the case where~~ the amount of the collected particulates is equal to or more than a predetermined threshold value, the control section controls the injection amount adjustment section such that the value of the engine speed becomes equal to or greater than a predetermined first reference value and also controls the engine load adjustment section such that the value of the throttle opening degree becomes equal to or greater than a predetermined second reference value, and further control section controls the air intake restriction adjustment section to restrict the amount of air intake of the engine.

3. (currently amended) The exhaust emission purifying apparatus according to claim 1 [[or 2]], wherein the temperature adjustment mechanism further includes a fuel injection timing adjustment section that adjusts the timing of fuel injection for the engine.

4. (currently amended) The exhaust emission purifying apparatus according to claim 3, wherein ~~in the case where~~ when the temperature of the exhaust gas at the outlet of the collection section is [[even]] higher than a determination temperature that is higher than the target temperature, the fuel injection timing adjustment mechanism advances the timing of fuel injection.

5. (currently amended) The exhaust emission purifying apparatus according to claim 3, wherein ~~in the case where~~ when the temperature of the exhaust gas at the outlet of the collection section is [[even]] lower than a determination temperature that is higher than the target temperature, the fuel injection timing adjustment mechanism delays the timing of fuel injection.

6. (currently amended) The exhaust emission purifying apparatus according to ~~any one of~~ claim[[s]] 1 [[to 5]], wherein the engine load adjustment section includes a hydraulic pump driven by the engine and a hydraulic pressure adjustment mechanism that is connected to the hydraulic pressure pump and adjusts the hydraulic pressure.

7. A method for performing a purification process [[of]] on exhaust gas emitted from an engine for an industrial vehicle, ~~wherein~~ the method comprising:

~~a step of~~ collecting particulates in the exhaust gas emitted from the engine,
~~a step of~~ detecting information on the amount of the collected particulates, and
~~a step of~~ controlling the amount fuel injected to the engine, an engine load, and the amount of air intake to the engine based on the detected information, thereby setting the temperature of the exhaust gas, which affects the collected particulates, to a predetermined target temperature corresponding to the combustion temperature of the same particulates.

8. (currently amended) The method according to claim 7, wherein the ~~step of~~ setting the temperature of the exhaust gas to a predetermined target temperature corresponding to the combustion temperature of the particulates includes:

~~a step of~~ controlling the engine speed and the amount of fuel injection to values equal to or greater than predetermined values set as the minimum;

~~a step of~~ raising the temperature of the exhaust gas by controlling the air intake restriction of the engine; and

~~a step of~~ controlling the engine load and the amount of fuel injection such that the temperature of the exhaust gas becomes equal to or higher than the target temperature.

9. (currently amended) The method according to claim 7, wherein the ~~step of~~ setting the temperature of the exhaust gas to a predetermined target temperature corresponding to the combustion temperature of the particulates includes:

~~a step of~~ controlling the engine speed and the amount of fuel injection to values equal to or greater than predetermined value set as the minimum;

~~a step of~~ raising the temperature of the exhaust gas by controlling the air intake restriction of the engine and the timing of fuel injection; and

~~a step of~~ controlling the engine load and the amount of fuel injection such that the temperature of the exhaust gas becomes equal to or higher than the target temperature.

10. (currently amended) The method according to claim 9, wherein the fuel injection timing is advanced ~~in the case where~~ when the temperature of the exhaust gas at the outlet of the collection section is higher than a determination temperature that is higher than the target temperature.

11. (currently amended) The method according to claim 9, wherein the fuel injection timing is delayed ~~in the case where~~ when the temperature of the exhaust gas at the outlet of the collection section is lower than a determination temperature that is higher than the predetermined temperature.

12. (new) The exhaust emission purifying apparatus according to claim 2, wherein the temperature adjustment mechanism further includes a fuel injection timing adjustment section that adjusts the timing of fuel injection for the engine.

13. (new) The exhaust emission purifying apparatus according to claim 12, wherein when the temperature of the exhaust gas at the outlet of the collection section is higher than a determination temperature that is higher than the target temperature, the fuel injection timing adjustment mechanism advances the timing of fuel injection.

14. (new) The exhaust emission purifying apparatus according to claim 12, wherein when the temperature of the exhaust gas at the outlet of the collection section is lower than a determination temperature that is higher than the target temperature, the fuel injection timing adjustment mechanism delays the timing of fuel injection.

15. (new) The exhaust emission purifying apparatus according to claim 2, wherein the engine load adjustment section includes a hydraulic pump driven by the engine and a hydraulic pressure adjustment mechanism that is connected to the hydraulic pressure pump and adjusts the hydraulic pressure.

16. (new) The exhaust emission purifying apparatus according to claim 3, wherein the engine load adjustment section includes a hydraulic pump driven by the engine and a hydraulic pressure adjustment mechanism that is connected to the hydraulic pressure pump and adjusts the hydraulic pressure.

17. (new) The exhaust emission purifying apparatus according to claim 4, wherein the engine load adjustment section includes a hydraulic pump driven by the engine and a hydraulic pressure adjustment mechanism that is connected to the hydraulic pressure pump and adjusts the hydraulic pressure.

18. (new) The exhaust emission purifying apparatus according to claim 5, wherein the engine load adjustment section includes a hydraulic pump driven by the engine and a

hydraulic pressure adjustment mechanism that is connected to the hydraulic pressure pump and adjusts the hydraulic pressure.

19. (new) The exhaust emission purifying apparatus according to claim 12, wherein the engine load adjustment section includes a hydraulic pump driven by the engine and a hydraulic pressure adjustment mechanism that is connected to the hydraulic pressure pump and adjusts the hydraulic pressure.

20. (new) The exhaust emission purifying apparatus according to claim 13, wherein the engine load adjustment section includes a hydraulic pump driven by the engine and a hydraulic pressure adjustment mechanism that is connected to the hydraulic pressure pump and adjusts the hydraulic pressure.

21. (new) The method according to claim 7, wherein the setting the temperature of the exhaust gas to a predetermined target temperature corresponding to the combustion temperature of the particulates includes:

controlling the engine speed and the amount of fuel injection to values equal to or greater than predetermined values; and

performing the air intake restriction of the engine after the engine speed and the amount of fuel injection reach said values equal to or greater than the predetermined values.

22. (new) The method according to claim 7, wherein the setting the temperature of the exhaust gas to a predetermined target temperature corresponding to the combustion temperature of the particulates includes:

controlling the engine speed and the amount of fuel injection to values equal to or greater than predetermined values;

performing the air intake restriction of the engine; and

increasing the engine load after the engine speed and the amount of fuel injection reach said values equal to or greater than the predetermined values and the air intake restriction of the engine is performed.